

COURSE SYLLABUS

1. Program information

1.1. Institution	Petroleum - Gas University of Ploiesti
1.2. Faculty	Petroleum Refining and Petrochemistry
1.3. Department	Petroleum Refining Engineering and Environmental Protection
1.4. Field of study	Chemical Engineering
1.5. Study cycle	Master
1.6. Study program	Chemical Engineering for Refineries and Petrochemistry

2. Course information

2.1. Course title	Ethics and academic integrity		
2.2. Course coordinator	Assistant Prof. Ph.D. Eng. Movileanu Daniela Luminița		
2.3. Laboratory / seminar coordinator			
2.4. Project coordinator			
2.5. Year of study	II		
2.6. Semester *	3		
2.7. Evaluation type	V		
2.8. Course type - formative category **	DC	2.8. Type of subject matter ***	C

* the semester number is in accordance with the curriculum;

** fundamental = DF; domain = DD; speciality = DS; complementary = DC; thoroughgoing = DA; synthesis = DSI.

***compulsory = C; optional = O; elective= E

3. Total estimated time (teaching hours per semester)

3.1. Number of hours per week	1	of which: 3.2. course	1	3.3. Seminars/laboratories	0	3.4 Project	-
3.5 Total hours from curriculum	14	of which: 3.6. course	14	3.7 Seminars/laboratories	0	3.8 Project	-
3.9 Time distribution							hours
Study of textbook, course support, bibliography and notes							60
Further reading in the library, on online platforms and fieldwork							10
Preparing seminars/laboratories, homework, portfolios and essays							14
Tutoring							0
Examinations							2
Other activities							0
3.10. Total hours of individual study		86					
3.11. Total hours per semester		90					
3.12. Number of credits		4					

4. Prerequisites (where applicable)

4.1. of curriculum	➤ graduated bachelor
4.2. of skills	➤ basic knowledge of using computer technologies for data acquisition, data processing and documentation

5. Requirements (where applicable)

5.1. of course	➤ Course room with video projector
5.2. of seminars/laboratory	➤ Seminar room with video projector

6. Specific competences

Professional competences	<p>PC1. Defining processes and design technical components: description, analysis and advanced use of fundamental concepts and theories in the field of chemical engineering</p> <p>PC2. Analysis of experimental data: determination of the physico-chemical characteristics, structure and properties of petroleum products and petrochemicals using complex analysis methods</p> <p>PC3. Design of equipment and apparatus for utilities: design of apparatus, processes and plants with the application of knowledge in the field of chemical engineering.</p> <p>PC4. Analysis of production processes in order to improve them: real time management of processes and plants in the chemical industry</p> <p>PC5. Development of design plans: conceptual design of chemical processes</p> <p>PC6. Knowledge, at high level, of specific software for chemical engineering and the use of computers and internet</p>
Transversal competences	<p>TC1. Efficient and effective performance of individual professional activities, under conditions of autonomy and professional independence</p> <p>TC2. Project management ensuring: Planning, organizing and leading of professional groups or institutions</p> <p>TC3. Capacity for permanent information and documentation in his field of activity, but also in related fields, both in romanian and in internationally spoken language</p> <p>TC4. Ability to perform professional tasks as a team leader.</p>

7. Course objectives (based on the competence grid)

7.1. General objective	<ul style="list-style-type: none"> ➤ knowledge and understanding of the issues, concepts and principles of ethics and academic integrity; ➤ developing documentation skills; ➤ developing skills for understanding and analysis of technical and scientific documents (patents, scientific papers) of various degrees of difficulty;
7.2. Specific objectives	<ul style="list-style-type: none"> ➤ knowledge and application of the principles and norms of professional ethics and deontology; ➤ identification and analysis of academic ethics and integrity issues, use and citation of sources, objective presentation of data; ➤ understanding the importance of performing replicable and reliable research and appreciation of factors that lead to rigorous research; ➤ application of critical thinking in solving ethical problems; ➤ expression of a responsible attitude towards the scientific field to optimal and creative capitalization of their own potential; ➤ teamwork, interpersonal communication and the assumption of specific roles.

8. Contents

8.1. Course	Time	Teaching methods	Comments
Ethics, deontology and integrity – introductory notices, terminology, history. The role of ethics and integrity in the academic field	1	Lecture, conversation and debate	
Intellectual fraud: terminology, legal regulations. Plagiarism. Authorship, ownership and plagiarism in the digital age. Scientific communication and deontology.	2		

Relations in the community and with the society; students' behaviour	1		
The code of academic ethics and deontology. Regulation of organization and functioning of the university ethics committee	2		
Documentation in scientific research. Ethical challenges caused by fast development of mass media.	1		
Data acquisition, management and sharing; Sloppiness vs Fabrication	1		
Industrial property. Right protection systems: patent, utility model, design, trademark. International treaties in patents field.	2		
Online database of patents and scientific papers	3		
Management of patenting. Legal exploitation of patents. Rights and obligations	1		
Bibliography 1. Constantinescu, M., Mureşan, V., <i>Institutionalizarea eticii: mecanisme si instrumente</i> , Editura Universitatii din Bucuresti, 2013 2. *** <i>Ullmann's Encyclopedia of Industrial Chemistry</i> , 40 Volume Set, 7th Edition. Wiley-VCH (Editor), 2011 3. *** <i>Kirk-Othmer Encyclopedia of Chemical Technology Fourth Edition</i> , John Wiley & Sons, 1998; 4. Erhan, V., <i>Brevetul de Inventie – Obtinere si exploatare</i> , Editura Lumina Lex, Bucuresti, 1995 5. Sutherland – Smith, W., <i>Plagiarism. The internet and student learning. Improving Academic Integrity</i> , Routledge, Taylor and Francis Group, New York and London, 2008 6. Macfarlane, B., <i>Researching with integrity. The ethics of academic enquiry</i> , Routledge, Taylor and Francis Group, New York and London, 2009 7. Brennecke, P., <i>Academic integrity at the Massachusetts Institute of Technology. A handbook for students</i> , 2012 8. Bretag, T., <i>Handbook of Academic Integrity</i> , Springer Reference, Singapore, 2016 9. Eaton, S.E., <i>Second handbook of Academic Integrity</i> , Springer International Handbooks of Education, Springer Nature Reference, Switzerland AG, 2024			
8.2. Seminar / laboratory/project	Time	Teaching methods	Comments

9. Correlation of the course contents with the demands of the epistemic community representatives, professional associations and representative employers in the field of the program

The content of the course and seminars is in agreement with the curricula of other universities, from our country or abroad. In order to better adapt the curriculum content to the requirements of labour market, meetings with economic partners, graduates and teachers from faculties in chemical engineering field were held.

10. Evaluation

Activity	10.1. Evaluation criteria	10.2. Evaluation methods	10.3. Percentage of final grade
10.4. Course	Correctness and completeness of acquired knowledge	Oral exam with theoretical questions	80%
	The degree of acquiring the specific language		
	Scientific report related to ethics and academic integrity	Power point presentation	20%

10.5. Seminar / laboratory / project			
10.6. Minimum performance standard			
➤ Minimum 5 for each examination subject			

Signature/date
05.02.2025

Course coordinator



Laboratory coordinator

Project coordinator

Date of approval in the
department

20.03.2025

Head of department
Assoc. prof. PhD. Eng.
Neagu Mihaela



Dean
Assist. prof. PhD. Eng. Duşescu-Vasile
Cristina

